

Work Order ID 67284

Tuesday, March 15, 2011 7:49:47 AM



Page 1

Item ID: D3622-1

Accept



Setup Start



Revision ID:

Item Name: Ball Stud

Stop



Start Date: 3/15/2011 Start Qty: 24.00



Cust Item ID:

Required Date: 3/21/2011 Req'd Qty: 24.00



Customer:

Reference:

Approvals:

Process Plan:

Handwritten signature

Date: 11-03-11

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

Draw Nbr

Revision Nbr

D3622

Rev C

100

0.00



Hardinge CNC LATHE SMALL

Hardinge

Memo

0.00

Hardinge CNC Lathe Small

1-TURN AS PER FOLIO FA686 & DWG D3622 ,

FOLIO REV: *Handwritten signature*

DWG REV: *Handwritten signature*

2-DEBURR AS REQUIRED

Handwritten: 11.3.29

Handwritten: 24

110

0.00



QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

Handwritten: 11.3.29

Handwritten: 24

120

0.00



QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

Handwritten: 11/03/29

Handwritten: 24

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 67284

Tuesday, March 15, 2011 7:49:47 AM



Page 2

Item ID: D3622-1

Accept



Setup Start



Revision ID:

Stop



Item Name: Ball Stud

Start Date: 3/15/2011 Start Qty: 24.00



Cust Item ID:

Required Date: 3/21/2011 Req'd Qty: 24.00



Customer:

Reference:

Approvals: Process Plan: _____ Date: _____ Tooling: _____ Date: _____
QC: _____ Date: _____ SPC (Y/N): _____ Date: _____

Run Start



Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
130 Packaging	Identify as per dwg & Stock Location: <u>70</u> Memo	0.00 0.00					11/3/30	5	(24)
Packaging									
140 QC	QC21- Final Inspection - Work Order Release Memo	0.00 0.00							
Quality Control									

OK 11/03/29

MF

11-03-29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Tuesday, March 15, 2011 7:49:52 AM

Page 1

Work Order ID: 67284

Parent Item: D3622-1

Parent Item Name: Ball Stud



Start Date: 3/15/2011

Required Date: 3/21/2011

Start Qty: 24.00

Required Qty: 24.00

Comments: IPP Rev:A New Issue 07-04-24 JLM

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M303H0.500

Purchased

No

100

f

89.3450

0.108

2.728421



303 HEX BAR .500



11.3-29

Location

Loc Qty

Loc Code

MAT037

89.345

109778

89.345

2.58

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

DART AEROSPACE LTD		Work Order:	67284
Description: Ball Stud		Part Number:	D3622-1
Inspection Dwg: D3622	Rev: C	Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.58	+/-0.030	.563	/		Req. 02	
0.50	+/-0.030	.498	/			
Ø0.394	+/-0.010	.394	/			
Ø0.310	+/-0.010	.311	/			
Ø0.215	+/-0.010	.215	/			
0.155	+/-0.010	.150	/			
0.313	+/-0.010	.313	/			
0.478	+/-0.010	.478	/			
0.630	+/-0.010	.630	/			
0.125	+/-0.010	.125	/			
0.563	+/-0.010	.561	/			
1.19	+/-0.030	1.190	/			
0.3125-24UNF-3A	+0.000/-0.072	3A	/			
M.O.W.	Min = 0.3336 Max = 0.3363	.3345	/		Req. 06	
Major Ø	.3053/.3125	.309	/		Req. 06	

Measured by:	Audited by:	Preliminary Approval:
Date: 11.3.29	Date: 11/03/29	Date:

Rev	Date	Change	Revised by	Approved
A	08.04.15	New Issue	KJ/DD	
B	10.02.02	Dwg Rev updated	KJ	
C	11.02.18	Dimensions updated per Dwg Rev C	KJ	

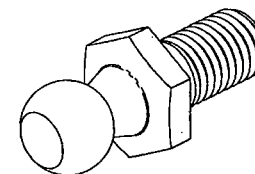
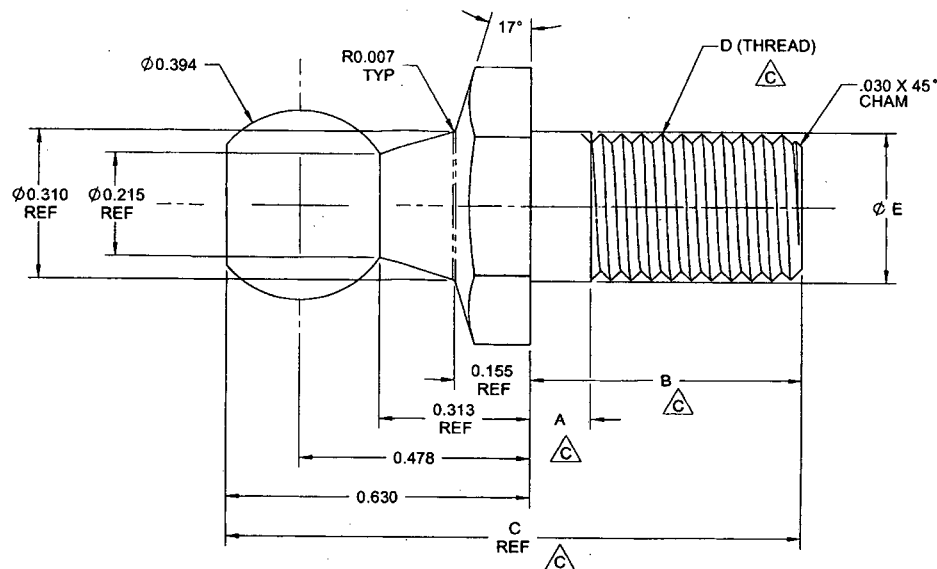
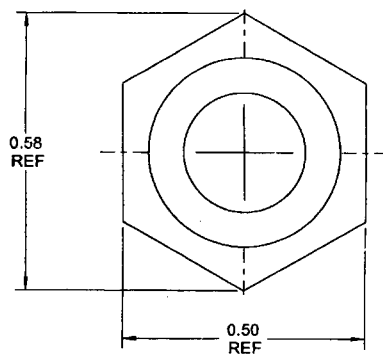
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

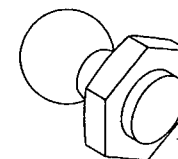
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



**D3622-1 BALL STUD
SHOWN**



**D3622-11 BALL STUD
SHOWN**

PART NUMBER	DIM A	DIM B	DIM C	WEIGHT (LBS)	THREAD D	Ø E MIN MAX
D3622-1	0.125	0.563	1.19	0.03	0.3125-24UNF-3A	0.3053 0.3125
D3622-3	0.125	0.563	1.19	0.03	0.1875-32UNF-3A	0.1840 0.1900
D3622-5	0.090	0.900	1.53	0.04	0.3125-24UNF-3A	0.3053 0.3125
D3622-7	0.060	0.330	0.96	0.03	0.3125-24UNF-3A	0.3053 0.3125
D3622-9	0.090	1.160	1.79	0.04	0.3125-24UNF-3A	0.3053 0.3125
D3622-11	0.060	N/A	0.69	0.02	NOT THREADED	0.270 0.300
D3622-13	0.090	0.680	1.31	0.03	0.3125-24UNF-3A	0.3053 0.3125

D3622-X BALL STUD

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 67284

PA 11-03-15

- NOTES:
- 1) MATERIAL: AISI 303 HEX BAR
REF DART SPEC M303H0.500
 - 2) FINISH: N/A
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: IDENT P/N D3622-X & B/N PER QSI 044
 - 7) WEIGHT: SEE D3622-X TABLE

C	SHEET 1: ADD -5, -7, -9, -11 & -13. ADD D3622-X TABLE. SHEET 2 DELETED	JPH	10.07.20
B	ADD -3 (SHEET 2)	HS	09.09.18
A	NEW ISSUE	MB	07.04.13
REV.	DESCRIPTION	BY	DATE
DESIGN	JPH	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	JPH	DRAWING NO. D3622	
CHECKED		REV. C	
MFG. APPR.		SHEET 1 OF 1	
APPROVED		TITLE BALL STUD	
DE APPR.		SCALE NTS	
DATE	10.07.20	COPYRIGHT © 2009 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.	

RELEASED
2010-09-23

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries